

## Remarks

Claims 1, 3-9, 13-15 And 18 Are Patentable Over A Combination Of U.S. Patent No. 5,810,698 of Hullett Et Al. And U.S. Patent No. 5,601,519 Of Comereski

Claims 1, 3-9, 13-15 and 18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,810,698 of Hullett et al. in view of U.S. Patent No. 5,601,519 of Comereski.

The Hullett patent describes an exercise apparatus or device which includes a frame 100 having a pair of rails 151 and 161 which cooperate to guide the movement of carriage 200 with respect thereto. Attached to carriage 200 is platform 210 having a body supporting surface 211 that "is substantially flat" (column 6, lines 3). Four pairs of rollers 221, 225, 229 and 231 are mounted on the back side of platform 210 for moving the carriage along the rails 151 and 161. In addition, pin 192 may be inserted through holes in the brackets for at least one of the rollers 231 and at least one of the rails 151 and 161 to lock the carriage in place with respect to the rails.

The Hullett device also includes a partial seat 215 which is fixed with respect to platform 210 "at an angle approximately 120 degrees relative thereto" (column 6, lines 6-9), and a foot support or platform 310, suitable for supporting both feet (as shown in Figure 4), which is attached to a cantilevered bar 321 that is pivotally attached to the frame. The Hullett device also includes right and left levers 420 and 440 which are rotatably connected to the carriage, and which are also connected to flexible lines 461 and 471. These lines engage pulleys 412 and 414 so that rotation of levers 420 and 440 may be translated to linear movement of the carriage relative to the frame.

The Comereski patent describes an abdominal exercising machine which includes an inclined base 12 which supports a collapsible platform 14 comprising a flexible semi-rigid mat and an ergonomic cushion 28 which rests on the mat. The platform is pivotally attached to a generally W-shaped carriage 40 which rides on convex inclines of the base by means of wheels 38. A spring 20 attached to the carriage holds the collapsible platform in the resting position shown in Figure 2, whereupon flexing of the user's abdomen opposes the resistance of the spring to move the platform to the collapsed position shown in Figure 3. An adjustable belt 44 is provided to strap the user around the waist to the platform.

The Office Action states that the Hullett reference discloses all of the limitations of claims 1, 3-9, 13-15 and 18 except the restraining belt, which is supplied by the Comereski patent. It suggests that it would have been obvious to one having ordinary skill in the art to which the invention relates to combine the restraining belt of the Comereski device with the Hullett device to produce the claimed invention. However, neither the Hullett patent nor the Comereski patent, nor any combination of such references, discloses, suggests or renders obvious a therapeutic exercise device having *a carriage comprising a lower section and an upper section that is pivotally attached to the lower section*, or a therapeutic exercise device having *a left foot rest and a right foot rest, each of which is independently pivotally attached to the lower end of the support frame*, as required by Applicant's claims 1, 3-9, 13-15 and 18.

With respect to claim 4, Applicant admits that the Comereski patent discloses a body-restraining belt 44. However, neither the Comereski patent nor the Hullett patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which

includes *a pair of body-restraining belts that are adapted to secure the body of a patient to the device, wherein one of said belts is located and arranged to secure the midsection of the patient to the carriage and the other of said belts is located and arranged to secure the legs of the patient to the device*, as required by Applicant's claim 4.

With respect to claims 6 and 7, the Hullett patent describes a single foot rest. However, neither the Comereski patent nor the Hullett patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *a left foot rest and a right foot rest, each of which may be independently pivoted between an angle of 0° with respect to the support frame and an angle of about 90° with respect to the support frame*, as required by Applicant's claim 7, or *a restraining belt for the left foot rest and a restraining belt for the right foot rest*, as required by Applicant's claim 6.

With respect to claim 8, Applicant admits that the Hullett patent discloses "pin 192 [that] may be inserted through holes in the brackets for at least one of the rollers 231 and in at least one of the rails 151 and 161 to lock the carriage 210 in place with respect to the rails 151 and 161" (column 6, lines 34-38). However, such locking mechanism does not limit the sliding motion of the carriage. Instead, it eliminates the sliding motion by locking the carriage to the rails.

Consequently, neither the Comereski patent nor the Hullett patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *a range of motion stop that is adjustably mounted on the support frame and adapted to limit the sliding motion of the carriage at a plurality of locations on the support frame*, as required by Applicant's claim 8.

With respect to claim 9, Applicant admits that the Hullett patent discloses a partial seat 215 which is fixed with respect to platform 210 "at an angle approximately 120 degrees relative thereto" (column 6, lines 6-9). However, nothing in the Hullett patent suggests that this partial seat 215 may be removably mounted to the carriage. Consequently, neither the Comereski patent nor the Hullett patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *an upper leg support that may be removably mounted on the carriage*, as required by Applicant's claim 9.

With respect to claims 13 and 14, the Office Action suggests that lower end of rail 152 and trunnion 154 comprise a "tilt mechanism". However, such structural components do not comprise any part of a *tilt mechanism that is adapted to pivot the upper section of the carriage with respect to the lower section*, as required by Applicant's claims 13 and 14.

With respect to claim 18, the Office Action suggests that Figure 5 discloses a "digital readout". However, the electronic display monitor of Figure 5 displays "exercise data, such as speed and frequency of exercise movement" (column 9, lines 46-64). Furthermore, as pointed out above, the Hullett device includes a single foot rest, not the left foot rest and a right foot rest that are required by Applicant's claim 18. In addition, neither the Comereski patent nor the Hullett patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes any mechanism or device for measuring the force that is applied to the foot rest. Consequently, nothing in these references, taken singly or in combination, discloses, suggests or renders obvious a *left digital readout for displaying the forces that are applied to the left foot rest and a right digital readout for displaying the forces*.

*that are applied to the right foot rest*, as required by Applicant's claim 18.

For the reasons set forth herein, Applicant requests that this rejection of his claims 1, 3-9, 13-15 and 18 be withdrawn, and that claims 1, 3-9, 13-15 and 18 be allowed.

Claims 1, 4-8, 10 and 13-16 Are Patentable Over A Combination Of U.S. Patent No. 5,940,911 Of Wang And U.S. Patent No. 5,601,519 Of Comerreski

Claims 1, 4-8, 10 and 13-16 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,940,911 of Wang in view of U.S. Patent No. 5,601,519 of Comerreski.

The Comerreski patent is described above. U.S. Patent No. 5,940,911 of Wang describes an adjustable bed which includes a chassis 3 including two side beams 7, a bed frame 19 and a mattress 5 comprising a plurality of sections, including fixed section 23 and moveable sections 21, 25 and 27. The Wang device also includes a lifting mechanism 9 (including an extensible rod 11) that is connected to side beams 7 for adjusting an inclined angle of the bed frame 19 relative to housing 165. Back rest 21 is pivotally mounted to frame 19, as is thigh rest 29. Leg rest 27 is pivotally connected to thigh rest 29.

The Office Action states that the Wang patent discloses all of the limitations of the claimed invention except for the body-restraining belt, and that it would have been obvious at the time the claimed invention were made to modify the Wang device by adding the restraining belt of Comerreski. However, no part of mattress 5 or the bed frame of the Wang device includes a carriage that is mounted for sliding movement along any other structure, or a pair of foot rests,

each of which is independently pivotally attached to a support frame. Consequently, neither the Wang patent, nor the Comereski patent, nor any combination of such references discloses, suggests or renders obvious a therapeutic exercise device *having a support frame and a carriage that is mounted for sliding movement along at least a portion of the support frame*, or a therapeutic exercise device having *a left foot rest and a right foot rest, each of which is independently pivotally attached to the lower end of the support frame*, as required by Applicant's claims 1, 4-8, 10 and 13-16.

With respect to claim 4, Applicant admits that the Comereski patent discloses a body-restraining belt 44. However, neither the Comereski patent nor the Wang patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *a pair of body-restraining belts that are adapted to secure the body of a patient to the device, wherein one of said belts is located and arranged to secure the midsection of the patient to the carriage and the other of said belts is located and arranged to secure the legs of the patient to the device*, as required by Applicant's claim 4.

With respect to claims 6 and 7, Applicant contends that leg rest 27 of the Wang device is not comparable in form or function to the claimed foot rests. However, in any event, neither the Wang patent nor the Comereski patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *a left foot rest and a right foot rest, each of which may be independently pivoted between an angle of 0° with respect to the support frame and an angle of about 90° with respect to the support frame*, as required by Applicant's claim 7, or *a restraining belt for the left foot rest and a restraining belt*

*for the right foot rest*, as required by Applicant's claim 6.

With respect to claims 8 and 10, Applicant points out that no part of Wang's mattress 5 or bed frame 19 includes a carriage that is mounted for sliding movement along any other structure. Consequently, neither the Wang patent nor the Comereski patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *a range of motion stop that is adjustably mounted on the support frame and adapted to limit the sliding motion of the carriage at a plurality of locations on the support frame*, as required by Applicant's claim 8, or *a range of motion limit detector which is adapted for determining when the carriage is moved to a predetermined position on the lower end of the support frame*, as required by Applicant's claim 10.

For the reasons described herein, Applicant submits that his invention, as defined by claims 1, 4-8, 10 and 13-16, is not disclosed, suggested or rendered obvious by a combination of the cited references. Applicant requests therefore that this rejection of his claims be withdrawn, and that claims 1, 4-8, 10 and 13-16 be allowed.

Claims 2, 11-12 And 19-20 Are Patentable Over A Combination Of U.S. Patent No. 5,940,911 Of Wang, U.S. Patent No. 5,601,519 Of Comereski And U.S. Patent No. 7,181,793 Of Lee

Claims 2, 11-12 and 19-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,940,911 of Wang in view of U.S. Patent No. 5,601,519 of Comereski and U.S. Patent No. 7,181,793 of Lee.

The Wang and Comereski patents are described above. U.S. Patent No. 7,181,793 of Lee describes a bed which may be tilted to maximize the generation of alpha brain waves. The Lee bed 12 includes an ankles fixing device 14 at one end and is adapted to be pivoted about hinge 18 by actuation of hydraulic pressure cylinder 40. A brain wave detector head set 50 detects alpha waves and transmits a signal to control section 60 which controls the tilting of the bed. The Office Action states that the Wang and Comereski patents disclose all of the limitations of the claimed invention except for the ankle support pad, signaling mechanism, carriage fixing mechanism and timer. The Office Action suggests that these components of the invention are disclosed by the Lee patent so that it would have been obvious at the time the claimed invention was made to modify the Wang device by adding the restraining belt of Comereski and the ankle support pad, signaling mechanism, carriage fixing mechanism and timer of Lee. However, none of the cited references includes a carriage that is mounted for sliding movement along any other structure, or a pair of foot rests, each of which is independently pivotally attached to a support frame. Consequently, neither the Wang patent, nor the Comereski patent, nor the Lee patent, nor any combination of such references discloses, suggests or renders obvious a therapeutic exercise device *having a support frame and a carriage that is mounted for sliding movement along at least a portion of the support frame*, or a therapeutic exercise device having *a left foot rest and a right foot rest, each of which is independently pivotally attached to the lower end of the support frame*, as required by Applicant's claims 2, 11-12 and 19-20. In addition, none of the cited references, and no combination of the cited references, can be read to disclose *a center section which is adapted to be removably attached to a support frame between an ankle section and a lower section of a carriage*, as required by Applicant's claim 2. Furthermore, none of the cited references, and no combination of the cited references, can be read to disclose *a center*



*section* which may be placed so as to *prevent the carriage from moving along a support frame*, as required by Applicant's claim 2, or a *mechanism for removably fixing the carriage on the support frame so as to prevent sliding movement of the carriage on the support frame*, as required by Applicant's claim 12.

With respect to claims 11, 19 and 20, Applicant points out that none of the cited references includes a carriage that is mounted for sliding movement along any other structure.

Consequently, neither the Wang patent nor the Comereski patent nor the Lee patent, nor any combination of such references, describes, suggests or renders obvious a therapeutic exercise device which includes *a signaling mechanism for signaling each time that the carriage is moved to a predetermined position on the support frame*, as required by Applicant's claim 11, or *a timer that measures the time that the moveable carriage is held in a predetermined position*, as required by Applicant's claim 19, or *a signaling device for generating a signal at a predetermined rate during the time that the carriage is held at a predetermined position*, as required by Applicant's claim 20.

In addition to the foregoing arguments, Applicant submits herewith a Declaration Under 37 C.F.R. §1.31 to establish that he made the invention of claims 2 and 12 prior to October 13, 2003, the filing date of the international application from which the Lee patent claims priority.

For the reasons described herein, Applicant submits that his invention, as defined by claims 2, 11-12, and 19-20, is not disclosed, suggested or rendered obvious by a combination of the cited references. Applicant requests therefore that this rejection of his claims be withdrawn, and that

claims 2, 11-12, and 19-20 be allowed.

Claim 17, As Amended, Is Allowable

Objection has been raised to claim 17 as being dependent on a rejected base claim. Applicant has now amended claim 17 to incorporate therein the limitations of claim 1 from which it depends.

Applicant respectfully submits that all of his claims are patentable over the cited references.

Applicant requests, therefore, that the §103(a) rejections of claims 1-16 and 18-20 be withdrawn, the objection to claim 17, as amended, be withdrawn, and that claims 1-16 and 18-20, as originally presented, and claim 17, as amended, be allowed. If the Examiner has any questions about this Response, she is invited to call Applicant's attorney at the telephone number set out below.

Respectfully submitted, .



David J. Hill

Attorney for Applicant

(Registration No. 28427)

Chambliss, Bahner & Stophel, P.C.

1000 Tallan Building

Two Union Square

Chattanooga, Tennessee 37402

(423) 756-3000

dhill@cbslawfirm.com